

ABSTRACT

A method of determining the cellular or genetic target of an antimicrobial compound includes cloning of a bacterial gene into an expression vector with an inducible promoter and determining whether increasing expression of the cloned gene in the cell will result in resistance to an antimicrobial compound. Also, the method can include incorporation of every gene of a bacterial strain into expression vectors having an inducible promoter, induction, treating with an antimicrobial compound, isolating the gene clone that confers cells resistant to the compound, and determining the identity of the resistant gene by various methods including DNA microarrays and gene sequencing.